We claim:

1. The process for producing an absorbent composite by contacting a solid supporting material with a mixture comprising at least one polymeric material and at least one crosslinker and curing the mixture on the supporting material wherein the polymeric material is carboxyl-rich polymers, not less than 50 mol% of the polymers being polymerized from unsaturated carboxylic acid monomers, the monomers of the carboxyl-rich polymers are wholly or partly neutralized with bases before or during the polymerization and the mixture is an emulsion.

2. The process according to claim 1 wherein the supporting material is fibers and/or tapes.

3. The process according to claim 1 or claim 2 wherein the supporting material is wovens and/or nonwovens.

4. The process according to any of claims 1 to 3 wherein the fibers are filaments and/or staple fibers.

5. The process according to any of claims 1 to 4 wherein the fibers are synthetic fibers.

6. The process according to any of claims 1 to 5 wherein the emulsion comprises an organic solvent comprising a mineral oil.

7. The process according to any of claims 1 to 6 wherein the polymeric material is carboxyl-rich polymers based on copolymers of vinylically and/or allylically unsaturated carboxylic acids and/or their derivatives.

8. The process according to any of claims 1 to 7 wherein the polymeric material is polymers based on copolymers of acrylic acid and/or on esters and/or amides of acrylic acid and/or of methacrylic acid.

9. The process according to any of claims 1 to 8 wherein the polymeric material further comprises a granular superabsorbent polymer based on partially neutralized crosslinked polyacrylic acid.

10. The process according to any of claims 1 to 9 utilizing covalent crosslinking agents.

11. The process according to claim 10 wherein the covalent crosslinking agent is a diepoxide.

12. The process according to any of claims 1 to 11 wherein said curing is effected in the range from 100 to 200°C.

13. The process according to any of claims 1 to 12 wherein the supporting material is coated, impregnated, padded, foamed or sprayed with at least one polymeric material and subsequently cured.

14. An absorbent composite obtainable by any process of claims 1 to 13 wherein the polymeric material was prepared by emulsion polymerization.

15. A close-out comprising at least one absorbent composite according to any one of claims 1 to 13 as well as at least one sealing membrane composed of plastics.

16. The close-out according to claim 15 wherein the absorbent composite is disposed between two sealing membranes composed of plastics.

17. A use of the absorbent composite according to claim 14 in sealing materials, in cable sheaths, to enhance water retention in agriculture and horticulture, to regulate the humidity in rooms and containers and also for moisture regulation in sitting or lying furniture.

18. The use according to claim 17 in sealing materials for road, tunnel and water engineering and also for excavations, highwater protection and roof-sealing systems.